IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Timothy Allen SHEAR

Title: AUTOMATED METHOD, SYSTEM AND SOFTWARE FOR STORING
               DATA IN A GENERAL FORMAT IN A GLOBAL NETWORK

Appl. No.:   10/042,260

Filing Date: 01/11/2002

Examiner: Kyle R. Stork

Art Unit: 2178

REVISED APPEAL BRIEF UNDER 37 C.F.R. § 41.37, AND RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Under the provisions of 37 C.F.R. § 41, an authorization to charge the amount of $500.00, covering the 37 C.F.R. § 41.20(b)(2) appeal fee, was previously submitted with an Appeal Brief filed on November 16, 2006 (whereby that Appeal Brief resulted in receipt of a Notice of Non-Compliant Appeal Brief). Accordingly, no fee is believed necessary for entry of this Revised Appeal Brief. If a fee is deemed to be necessary, authorization is hereby given to charge any deficiency (or to credit any balance) to deposit account 19-0741.

1.   REAL PARTY IN INTEREST

The real party in interest is GXS, Inc. (with a principle place of business in Gaithersburg, Maryland), which is the changed name of the assignee of record, G.E. Information Services, Inc., a corporation under the laws of the State of Delaware.

2.   RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences that will directly affect, be directly affected by or have a bearing on the present appeal, that are known to appellant, the assignee, or the appellant's patent representative.

3.   STATUS OF CLAIMS

The present appeal is directed to claims 1, 2, 4-6, 8-15, 18-20, 22, 24-26, and 28-33 which are the claims under consideration. A copy of the pending claims 1, 2, 4-6, 8-15, 18-20, 22, 24-26, and 28-33 are attached herein in the Claims Appendix (Section 8).

Claims 3, 7, 16, 17, 21, 23, 27 and 34-36 have been previously canceled.

Claims 1, 4-6, 9, 12-14, 18-20, 24-26, 29, 32, 33, and 35 are finally rejected under 35 U.S.C. § 103(a) as being unpatentable over IBM Technical Disclosure Bulletin (hereafter "IBM Bulletin") and further in view of U.S. patent 5,446,883 to Kirkbride et al. (hereafter "Kirkbride").

Claims 2, 15, and 22 are finally rejected under 35 U.S.C. § 103(a) over IBM and Kirkbride, further in view of U.S. patent 6,393,442 to Cromarty et al. (hereafter "Cromarty").

Claims 8, 10, 11, 25, 30, and 31 are finally rejected under 35 U.S.C. § 103(a) over IBM and Kirkbride, further in view of U.S. patent 6,519,571 to Guheen et al. (hereafter "Guheen").

4.   STATUS OF AMENDMENTS

Claims 1-36 were initially pending in the application filed on January 11, 2002.

A Reply was filed on April 13, 2005, in reply to a non-final Office Action mailed on January 14, 2005. In that reply, claims 1, 2, 4-6, 8-14, 18-20, 22, 24-26 and 28-33 were amended, and claims 3, 7, 16, 17, 21, 23, 27 and 34-36 were canceled.

A Reply was filed on October 27, 2005, in reply to a final Office Action mailed on July 27, 2005, which rejected all of the claims under consideration (claims 1, 2, 4-6, 8-15, 18-20, 22, 24-26 and 28-33). In that reply, no claim amendments were made.

A Reply was filed on March 21, 2006, in reply to a non-final Office Action mailed on November 21, 2005, which rejected all of the claims under consideration. In that Reply, claims 1, 14, 20 and 28 were amended.

A Reply was filed on July 17, 2006, in reply to a final Office Action mailed on May 23, 2006, which rejected all of the claims under consideration. In that Reply, no claim amendments were made.

An Advisory Action, mailed on August 28, 2006, stated that the application was not in condition for allowance after consideration of the Reply.

A Notice of Appeal was filed on September 21, 2006, together with a Pre-Appeal Brief.

A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on October 23, 2006, which stated that all of the claims 1, 2, 4-6, 8-15, 22, 24-26 and 28-33 remain rejected, as there is at least one actual issue for appeal.

This Appeal Brief is being filed within the statutory two month period after the filing of the Notice of Appeal.

5.   SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 11, and 14 recite a method for processing an inbound document received from a trading partner in a business-to-business electronic commerce data processing system. In short, as described in paragraph 0077 of the specification, documents may be stored in common form (e.g., a first format) and re-constructed into any desired target document format, thereby allowing an easy exchange of transactions between various trading partners that use different document formats.

Independent <u>claim 1</u> recites a computer implemented method of automatically storing and transmitting data in a global commerce network in a universal format.

The method includes a step of receiving a document in a first format. See for, example, the discussion in paragraph 0046 of the specification, which describes that the first format may be a canonical form.

The method also includes a step of parsing the received document in the first format into a constituent node set of nodes, with each node comprising an information couplet. See, for example, the description in paragraph 0046 of the specification, which describes that a second format is as node set, in which a node is equivalent to an information couplet that comprises both a semantic tag and its corresponding value. For example, referring to Figure 5A of the drawings, al values under the semantic tag product_id 556, together with the semantic tag "product_id 556", make up a node set. See also the Parser 300 as shown in Figure 3 of the drawings, and as described in paragraph 0051 of the specification. The Parser 300 performs the parsing features recited in this step.

The method further includes a step of semantically-tagging, indexing and storing the node set of the received document in a data store. See, for example, the description in paragraph 0055 of the specification, in which the semantically-tagged node sets are indexed and stored in a Data Store 30.

The method still further includes a step of automatically triggering a propagation of a predetermined event on the node set, over the global commerce network, to a registered partner on the global commerce network. See, for example, paragraph 0058 of the specification, as well as paragraph 0076 of the specification, which describes that triggering of events are propagated throughout a network to the registered partners.

Independent <u>claim 14</u> is a system claim that recites features similar to those discussed above with respect to independent claim 1. See Figure 3 of the drawings, which shows a Data Translator 210, a Parser 300, a Semantic Tagger 320, an Indexer 310, and a Data Store 330. Not shown in Figure 3 is a trigger unit that automatically triggers a propagation of a

predetermined event on the node set to a registered partner on the global commerce network. See paragraph 0076 of the specification for a description of this unit.

In more detail, claim 14 includes a data translator that receives a document in a first format. The data translator (see element 210 in Figure 3 of the drawings) includes a parser that parses said received document into a constituent node set of nodes, each node comprising an information couplet. See, for example, the description in paragraph 0046 of the specification, which describes that a second format is as node set, in which a node is equivalent to an information couplet that comprises both a semantic tag and its corresponding value. For example, referring to Figure 5A of the drawings, al values under the semantic tag product_id 556, together with the semantic tag "product_id 556", make up a node set. See also the Parser 300 as shown in Figure 3 of the drawings, and as described in paragraph 0051 of the specification.

The data translator also includes a semantic tagging unit that semantically tags the constituent node set. See, for example, element 320 in Figure 3 of the drawings, and the description in paragraph 0055 of the specification, in which the semantically-tagged node sets are indexed and stored in a Data Store 330 (as shown in Figure 3 of the drawings).

The system of claim 14 further includes an indexer that indexes the node set. See, for example, the description in paragraph 0055 of the specification, in which the semantically-tagged node sets are indexed and stored in a Data Store 330.

The system of claim 14 still further includes a data store that stores each the indexed node set. See the above description with respect to the indexer, in which the tagged node sets are stored in a Data Store 330 (and also see Figure 3 of the drawings).

The system of claim 14 also includes a trigger unit that automatically triggers a propagation of a predetermined event on the node set, over the global commerce network, to a registered partner on the global commerce network wherein the predetermined event is an update of the node set that is derived from a document previously sent by the registered partner. See, for example, paragraph 0058 of the specification, as well as paragraph 0076 of

the specification, which describes that triggering of events are propagated throughout a network to the registered partners.

Independent <u>claim 20</u> is a computer program product claim that recites features very similar to those discussed above with respect to independent claim 1. The computer program product, when executed on a computer, causes the computer to perform steps as detailed below..

Claim 20 includes a step of receiving a document in a first format. See for, example, the discussion in paragraph 0046 of the specification, which describes that the first format may be a canonical form.

Claim 20 also includes a step of parsing the received document in the first format into a constituent node set of nodes, with each node comprising an information couplet. See, for example, the description in paragraph 0046 of the specification, which describes that a second format is as node set, in which a node is equivalent to an information couplet that comprises both a semantic tag and its corresponding value. For example, referring to Figure 5A of the drawings, al values under the semantic tag product_id 556, together with the semantic tag "product_id 556", make up a node set. See also the Parser 300 as shown in Figure 3 of the drawings, and as described in paragraph 0051 of the specification. The Parser 300 performs the parsing features recited in this step.

Claim 20 further includes a step of semantically-tagging, indexing and storing the node set of the received document in a data store. See, for example, the description in paragraph 0055 of the specification, in which the semantically-tagged node sets are indexed and stored in a Data Store 30.

Claim 20 still further includes a step of automatically triggering a propagation of a predetermined event on the node set, over the global commerce network, to a registered partner on the global commerce network. See, for example, paragraph 0058 of the specification, as well as paragraph 0076 of the specification, which describes that triggering of events are propagated throughout a network to the registered partners.

6.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issue on appeal is whether the examiner erred:

in rejecting claims 1, 4-6, 9, 12-14, 18-20, 24-26, 29, 32, 33, and 35 under 35 U.S.C. § 103(a) as being unpatentable over IBM Technical Disclosure Bulletin (hereafter "IBM Bulletin") in view of U.S. Patent No. 5,446,883 to Kirkbride et al. (hereafter "Kirkbride");

in rejecting claims 2, 15, and 22 under 35 U.S.C. § 103(a) over IBM and Kirkbride, further in view of U.S. patent 6,393,442 to Cromarty et al. (hereafter "Cromarty"); and

in rejecting claims 8, 10, 11, 25, 30, and 31 under 35 U.S.C. § 103(a) over IBM and Kirkbride, further in view of U.S. patent 6,519,571 to Guheen et al. (hereafter "Guheen").

7.   ARGUMENT

It is respectfully submitted that the applied rejections of the pending claims are erroneous for at least the following reasons.

A.   Rejection of Claims 1, 4-6, 9, 12-14, 18-20, 24-26, 29, 32, 33, and 35 over IBM Technical Disclosure Bulletin in view of Kirkbride.

With respect to the pending independent claims 1, 14, and 20, as acknowledged in the final office action, the IBM TDB does <u>not</u> disclose the combination of (1) automatic triggering of a propagation of a predetermined event on the node set, to a registered partner, over a global network, and (2) wherein the predetermined event is an *update* of the node set that is derived from a document previously sent by the trading partner. In order to cure this deficiency of the IBM TDB, the final office action relies on Kirkbride.

Kirkbride relates to distributed call management for an expert system, where the expert system is used to solve recurring problems. See column 1, lines 14-60. However, Kirkbride has nothing to do with "parsing said received document ... into a constituent node set." Kirkbride also has nothing to do with "semantically-tagging, indexing and storing the node set." Kirkbride further has nothing to do with

"automatically triggering a propagation of a predetermined event on the node set ... wherein the predetermined event is an update of the node set." Rather, Kirkbride provides a notification of an update to users who have an interest in a solution document not of a node set, but rather the document itself.

> "Notify link register 28 records the mapping between user table register 25 and the incident solution in acyclic graph data base 27. This linkage maintains a list of all users who have an interest in a specific document, enabling notification of users when a change or update to the document is created. Problem link register 29 connects the contents of incident table register 23 to corresponding solution documents in acyclic graph data base 27. This linkage is useful to the system administrator for showing which solution documents were retrieved for various incidents or problems posed to inquiry computer 10. One example of the use of this linkage would be if a non-optimal solution document was continually being retrieved for a recurring problem or incident. Recognizing this pattern from the data stored in problem link register 29, the data owner could take action to either improve the solution document or restructure acyclic graph paths 36 so that a more useful solution to the given problem is found." Kirkbride, column 4, lines 29-47.

Still further, Kirkbride has nothing to do with automatically triggering the propagation to trading partners (over a global commerce network) of a predetermined event that is an update of a node set derived from a previously sent document from a trading partner.

See, for example, paragraphs 71-72 and 74-77 in the specification with respect to support for these claimed features in the specification. These features provide the advantage that related or *registered trading partners* are *automatically* updated when any *changes* are made to a node set. See paragraph 79 in the specification for these advantages.

Thus, neither the IBM TDB nor Kirkbride discloses the triggering event being not an update to a document, but rather it describes an update to a node set.

In the Advisory Action, the Examiner asserts (in the Continuation page to the Advisory Action) that "Kirkbride discloses storing the records of users in a table register (column 4, lines 29-47). Upon update of a document, the users are all notified of the change (column 4, lines 29-47)."

While the above assertion made in the Continuation page of the Advisory Action appears to be true on its face, it ignores the specific features recited in claim 1.   At best, the combination of the IBM TDB and Kirkbride teaches a document that is stored as nodes in a storage (based on teachings of IBM TDB), whereby a change in the document is notified to all users stored in a list (based on the teachings of Kirkbride). This says nothing about an ***update*** that is ***derived*** from a ***document previously sent*** by a ***trading partner***. Rather, Kirkbride merely describes a method in which, when a solution document is updated or changed, all users on a list of users are notified of the change (see column 4, lines 29-47 of Kirkbride). The change of the solution document in Kirkbride is not derived from a document previously sent by a trading partner (or by any other entity for that matter), and thus it fails to meet the specific features recited in claim 1.

Therefore, the final office action fails to make a *prima facie* case of obviousness with respect to the independent claims (whereby independent claims 14 and 20 recite similar features to those highlighted above with respect to claim 1), as required by section 103.

B.   Rejection of Claims 2, 15 and 22 over IBM Technical Disclosure Bulletin in view of Kirkbride and further in view of Cromarty.

Claims 2, 15 and 22 further recite retrieving each node of the received document, and reassembling required nodes of the received document into a second format. Cromarty was cited in the final Office Action for the features recited in claims 2, 15 and 22, whereby Cromarty does not rectify the above-mentioned deficiencies of Kirkbride, as discussed in detail above.

C.   Rejection of Claims 8, 10, 11, 25, 30 and 31 over IBM Technical Disclosure Bulletin in view of Kirkbride and further in view of Guheen.

Claim 8 recites that the registered partner registers for notification of all propagation of the predetermined event. Claims 10 and 30 recite features directed to triggering a propagation of an event to a registered partner by storing at least one of the nodes of a second

document and updating at least one of the nodes of the document previously stored in the data store. Claims 11 and 31 recite features directed to the registered partner retrieving the node set stored in the data store upon notification of the predetermined event.

Guheen was cited in the final Office Action for the features recited in claims 8, 10, 11, 25, 30 and 31, whereby Guheen does not rectify the above-mentioned deficiencies of Kirkbride, as discussed in detail above.

D.   Rejection of Claims 12, 13, 32 and 33 over IBM Technical Disclosure Bulletin in view of Kirkbride.

Further to the arguments made in Section A, above, these claims are patentable over the cited art of record for additional reasons. Namely, claims 12 and 32, recite a step of: "appending at least one node of said node set of said received second document to said document previously stored in said data store." Claims 13 and 33, recite a step of: "triggering a propagation of an event to the registered partner, over the global commerce network, by the storing or appending of at least one of said nodes of said second document stored in said data store."

None of the above features of claims 12, 13, 32 and 33 related to appending of a node and/or the storing of a node of a node set of a received second document stored or previously stored in a data store, are taught or suggested by the cited art of record, when taken as a whole.

CONCLUSION

In view of above, appellants respectfully solicit the Honorable Board of Patent Appeals and Interferences to reverse the rejections of the pending claims and pass this application on to allowance.

> Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicants hereby petition for any needed extension of time.

Respectfully submitted,

Date _february 6, 2007_

By _Phillip J. Articola_

William T. Ellis
Registration No. 26,874

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

Phillip J. Articola
Registration No. 38,819

Attorneys for Applicants

-11-

8. **CLAIMS APPENDIX**

LIST OF THE PENDING CLAIMS (WITH STATUS IDENTIFIERS)

1.   (Previously Presented) A computer implemented method of automatically storing and transmitting data in a global commerce network in an universal format, the method comprising the steps of:

receiving a document in a first format;

parsing said received document in said first format into a constituent node set of nodes, each node comprising an information couplet;

semantically-tagging, indexing and storing the node set of said received document in a data store, and

automatically triggering a propagation of a predetermined event on the node set, over the global commerce network, to a registered partner on the global commerce network, wherein the predetermined event is an update of the node set that is derived from a document previously sent by the registered partner.

2.   (Previously Presented) The method according to claim 1, further comprising:

retrieving said each node of said received document; and

reassembling required nodes of said received document into a second format.

3.   (Cancelled)

4.   (Previously Presented) The method according to claim 1, wherein said node set is stored in a data store.

5.   (Previously Presented) The method according to claim 1, wherein said node set is stored in a format that can be translated to any other format used in the global commerce network.

6.   (Previously Presented) The method according to claim 4, wherein said stored node set is stored in a format corresponding to a format of said data store.

7.   (Cancelled).

8.   (Previously Presented) The method according to claim 1, wherein the registered partner in said global commerce network registers for notification of said propagation of said predetermined event.

9.   (Previously Presented) The method according to claim 1, further comprising:

receiving a second document;

parsing said received second document into its constituent node set of nodes;

indexing said each node of the node set of said received second document;

storing said node set of said received second document in said data store; and

updating at least one of said nodes of said document previously stored in said data store which corresponds to one of said nodes of said received second document.

10.   (Previously Presented) The method according to claim 9, further comprising triggering a propagation of an event to the registered partner by the storing of at least one of said nodes of said second document and updating at least one of said nodes of said document previously stored in said data store.

11.   (Previously Presented) The method according to claim 8, wherein said registered partner retrieves said node set stored in said data store upon said notification of said predetermined event.

12.   (Previously Presented) The method according to claim 1, further comprising:

-13-

receiving a second document;

parsing said received second document into its constituent node set of nodes;

indexing said node set of said received second document;

storing said node set of said received second document in said data store; and

appending at least one node of said node set of said received second document to said document previously stored in said data store.

13.   (Previously Presented) The method according to claim 12, further comprising triggering a propagation of an event to the registered partner, over the global commerce network, by the storing or appending of at least one of said nodes of said second document stored in said data store.

14.   (Previously Presented) A system for automatically storing and transmitting data in a global commerce network in an universal form, the system comprising:

a data translator that receives a document in a first format, said data translator comprising:

a parser that parses said received document into a constituent node set of nodes, each node comprising an information couplet; and

a semantic tagging unit that semantically tags said constituent node set;

an indexer that indexes said node set;

a data store that stores each said indexed node set; and

a trigger unit that automatically triggers a propagation of a predetermined event on the node set, over the global commerce network, to a registered partner on the global commerce network_wherein the predetermined event is an update of the node set that is derived from a document previously sent by the registered partner.

15.   (Original) The system according to claim 14, wherein said data translator retrieves each said indexed and stored node set and assembles said each node set into a second format.

16-17 (Canceled)

18.   (Previously Presented) The system according to claim 14, wherein said stored node set is stored in a format that can be translated to any other format used in the global commerce network.

19.   (Previously Presented) The system according to claim 14, wherein said stored node set is stored in a format corresponding to a format of said data store.

20.   (Previously Presented) A computer program product on a computer readable medium having program code that is executable by a computer for storing and transmitting data in a network in an universal form, the program code configured to cause the computer to perform the following steps:

receiving a document in a first format;

parsing said received document in said first format into a constituent node set of nodes, each node comprising an information couplet;

semantically-tagging, indexing and storing the node set of said received document in a data store, and

automatically triggering a propagation of a predetermined event on the node set, over the global commerce network, to a registered partner on the global commerce network, wherein the predetermined event is an update of the node set that is derived from a document previously sent by the registered partner.

21.   (Canceled)

22.   (Previously Presented) The program product according to claim 20, wherein the program code is configured to cause the computer to further perform the following steps:

retrieving said each node of said received document; and

reassembling said each node into a second format.

23.   (Canceled)

24.   (Previously Presented) The program product according to claim 20, wherein said node set is stored in a data store.

25.   (Previously Presented) The program product according to claim 20, wherein said stored node set is stored in a format that can be translated to any other format used in the global commerce network.

26.   (Previously Presented) The program product according to claim 20, wherein said stored node set is stored in a format corresponding to a format of said data store.

27.   (Canceled)

28.   (Previously Presented) The program product according to claim 20, wherein the registered partner registers with said global commerce network for notification of said propagation of said predetermined event.

29.   (Previously Presented) The program product according to claim 20, further comprising:

receiving a second document;

parsing said received second document into its constituent node set of nodes;

indexing said each node of the node set of said received second document;

storing said node set of said received second document in said data store; and

updating at least one of said nodes of said document previously stored in said data store which corresponds to one of said nodes of said received second document.

30.   (Previously Presented) The program product according to claim 29, further comprising triggering a propagation of the registered partner by the storing of at least one of said nodes of said second document and updating at least one of said nodes of said document previously stored in said data store.

31.   (Previously Presented) The program product according to claim 28, wherein said registered partner retrieves said node set stored in data store upon said notification of said predetermined event.

32.   (Previously Presented) The program product according to claim 20, further comprising:

receiving a second document;

parsing said received second document into its constituent node set of nodes;

indexing said node set of said received second document;

storing said node set of said received second document in said data store; and

appending at least one node of said node set of said received second document to said document previously stored in said data store.

33.   (Previously Presented) The program product according to claim 32, further comprising triggering a propagation of an event to the registered partner, over the global commerce network, by the storing or appending of at least one of said nodes of said second document stored in said data store.

34-36 (Canceled)

9.   EVIDENCE APPENDIX

None.

10.   RELATED PROCEEDINGS APPENDIX

None.